

**Amendments to the Claims:**

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. **(Currently Amended)** A method, carried out by a computer processor, of embedding a digital watermark in an information signal; the method comprising

- deriving a watermark secret from an identifier data item identifying the information signal by a function which is computationally ~~hard or~~ infeasible to invert;
- embedding a digital watermark in the information signal where said embedding is controlled by the watermark secret;
- calculating a digital fingerprint from the information signal;
- storing the calculated digital fingerprint as a reference digital fingerprint and storing, in relation to the reference digital fingerprint, said identifier data item.

2. **(Previously Presented)** A method according to claim 1, wherein the information signal is an audio signal, the digital fingerprint is an audio fingerprint, and the digital watermark is an audio watermark.

3. **(Previously Presented)** A method according to claim 1, wherein storing the calculated digital fingerprint and said identifier data item comprises storing the calculated digital fingerprint and the identifier data item in a fingerprint database.

4. **(Cancelled)**

5. **(Previously Presented)** A method according to claim 1, wherein the watermark secret is determined by a random process.

6. **(Previously Presented)** A method according to claim 1, where the digital watermark comprises a watermark payload and wherein the watermark payload is indicative of the information signal.

7. **(Previously Presented)** A method according to claim 6, further comprising encoding said watermark payload based on an encryption key derived from an identifier indicative of an information content of the information signal.

8. **(Previously Presented)** A method according to claim 1, wherein the information signal is a video signal.

9. **(Previously Presented)** A method, carried out by a computer processor, of detecting a digital watermark in an information signal; the method comprising

providing a plurality of digital reference fingerprints each calculated from a respective reference information signal, where each digital fingerprint is associated with a corresponding watermark secret;

calculating a digital fingerprint from the information signal;

determining a matching digital fingerprint from the plurality of digital reference fingerprints as corresponding to the calculated digital fingerprint, wherein a query is sent to a fingerprint database, the query comprising the calculated digital fingerprint, and wherein a response is received from the fingerprint database, the response including a identifier data item from which the watermark secret associated with the matching digital fingerprint can be derived; and

detecting whether a digital watermark according to the watermark secret associated with the matching digital fingerprint is present in the information signal.

**10. (Canceled)**

**11. (Previously Presented)** A method according to claim 9, wherein sending the query and receiving the response comprise communicating via a communications network.

**12. (Previously Presented)** A method according to claim 9, wherein the information signal comprises an encoded information signal; and calculating the digital fingerprint comprises decoding the encoded information signal, and calculating the fingerprint from the decoded information signal.

**13. (Previously Presented)** A method according to claim 9, wherein determining the matching digital fingerprint comprises performing a search in the fingerprint database based on reliability information about the calculated digital fingerprint.

14. **(Currently Amended)** An arrangement for embedding a digital watermark in an information signal; the arrangement comprising

- means for deriving a watermark secret from an identifier data item identifying the information signal by a function which is computationally ~~hard or~~ infeasible to invert;
- means for embedding a digital watermark in the information signal where said embedding is controlled by a watermark secret;
- means for calculating a digital fingerprint from the information signal; and  
means for storing the calculated digital fingerprint as a reference digital fingerprint and

for storing, in relation to the reference digital fingerprint, a identifier data item from which the watermark secret can be derived.

15. **(Previously Presented)** An arrangement for detecting a digital watermark in an information signal; the arrangement comprising

means for providing a plurality of digital reference fingerprints each calculated from a respective reference information signal, where each digital fingerprint is associated with a corresponding watermark secret;

means for calculating a digital fingerprint from the information signal;

means for determining a matching digital fingerprint from the plurality of digital reference fingerprints as corresponding to the calculated digital fingerprint, wherein a query is sent to a fingerprint database, the query comprising the calculated digital fingerprint, and wherein a response is received from the fingerprint database, the response including a identifier data item from which the watermark secret associated with the matching digital fingerprint can be derived; and

means for detecting whether a digital watermark according to the watermark secret associated with the matching digital fingerprint is present in the information signal.

**16. (Cancelled)**